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Trees and development viability

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In response to a request from someone on the UKTC site forum, I am presenting a brief tree-centric explanation of development viability, based on my 20 or so years as a Chartered Surveyor in the development industry. It is highly unlikely that tree officers or arb consultants will be taking the lead in discussions about development viability, but a basic understanding and demystification of viability will at least allow discussion to be followed and occasionally moved in a direction that will avoid the unnecessary or unjustified loss of trees.

Talking the talk

Let's learn the lingo of development appraisal. For now, viability in its simplest form means that the value of the completed development equals all the costs of development, plus the cost of the land, plus an adequate financial profit. Or simply:

Value = Costs + Land + Profit

By 'adequate' I mean at least an adequate return on the financial risk of taking on the development. Uncertainty, at the early stages of site appraisal, means risk, which means higher borrowing costs.

The principles of viability can be illustrated by a simple example of a development appraisal. I have chosen an example involving

housing for private sale, but the principles can be applied equally to more complex residential or commercial developments.

So let's say a developer is trying to work out how much he can afford to pay for a site that he can develop for 40 houses for sale. The site is for sale at offers over £1million. He expects the houses to sell for £¼million each. Constructing a vehicular access and connecting services to the site will cost £½million, regardless of the number of houses. He has been told he would have to contribute £140,000 towards the cost of a new primary school for the area. He needs to make an acceptable profit, which he and his lenders decide is 12.5%. See Table 1.

Table 1

INCOME		
Sales (net)	40 houses @ £250,000	£10,000,000
OUTGOINGS		
Site works		£500,000
Build costs	40 houses @ £150,000	£6,000,000
Planning gains	(primary school)	£140,000
Fees	@ 12% of costs	£720,000
Financing	@ 4% of costs	£240,000
Total outgoings		-£7,600,000
Profit	12.5% of outgoings	-£950,000
Residual (site) value		£1,450,000

In this scenario, this development is therefore viable because the residual (site) value is greater than the asking price of £1million. He can afford to bid up to £1.45million and still make an acceptable profit.

This format of development appraisal, it may be seen, can be used either to estimate the profit for any fixed site cost or the site cost for any target profit – or, as we'll see later, both. Let's park the arithmetic for a moment.

How trees affect viability

Trees can affect viability in a number of ways. Let's assume that through statutory protections (felling licences, conservation area designation or tree preservation order) the site cannot just be cleared of trees before making a planning application. Some common negative effects on viability would be:

- trees (and their roots) directly occupying space that could otherwise be occupied by profitable houses for sale
- trees in such a position that they obstruct the optimum vehicular or service access positions, resulting in a less efficient layout
- the need for more expensive excavation techniques to avoid damage to roots while installing services
- the need for more expensive surface treatments to avoid damage to root protection areas
- more expensive foundations on shrinkable clays
- negative effects of trees on house sales values (typically shade)

Conversely, there may be valid arguments that trees could have a positive effect on viability by:

- positive effects on house sales value due to ready-made amenity
- savings on new tree planting and after-care
- reduced risk of heave on shrinkable clays if vegetation retained

And so back to the arithmetic. Now let's say there is a group of four protected trees which the planning authority will not allow to be removed, and they take up the equivalent of four house plots. They shade another four plots, and it is expected that this will cause the houses on these plots to be slower to sell and not to achieve premium prices. There are other trees along the frontage which will mean careful excavation by hand so that services can be installed, and car parking areas are only possible around protected trees if cellular protection is installed carefully. The resultant appraisal might now look like Table 2.

Table 2

INCOME		
Sales (net)	32 houses @ £250,000	£8,000,000
	4 houses @ £240,000	£960,000
Total sales	36	£8,960,000
OUTGOINGS		
Site works		£750,000
Build costs	36 houses @ £150,000	£5,400,000
Planning gains	(reduced pro rata)	£133,000
Fees	@ 12% of costs	£648,000
Financing	@ 4% of costs	£216,000
Total outgoings		-£7,147,000
Profit	12.5% of outgoings	-£893,000
Residual (site) value		£920,000

The bottom line (literally) is that the site owner's seller's expectation of land value cannot be met. The site will not sell and viable development

will not take place unless the site seller changes his expectations or a developer comes forward who will settle for a lesser profit.

I mentioned above that the appraisal format can be used to calculate both profit and site value. What is meant by this is at the core of property valuation. When costs of development are deducted from the end values of a development, what is left is site value plus profit. That is why the term 'residual' is used. It's what's left over to negotiate between landowner and developer. Sometimes, if the site value is fixed, it is residual profit. If profit is a fixed target, it is residual land value.

Let's look at an abridged version of the above appraisal, but this time assuming that the site owner will not or cannot sell to the developer for less than £1million (Table 3). At what profit level is the development viable?

Table 3

INCOME		
Total sales	36	£8,960,000

OUTGOINGS	
Total outgoings	-£7,147,000
Minimum site cost	-£1,000,000
Residual profit	£813,000
as % of outgoings	11.38%

Development will not take place until a developer will accept only 11.38% profit. The figures are hypothetical, but there is an important principle here. A developer may accept a lesser profit because by now a lot of detailed design and discussion with the planning authority have greatly reduced the uncertainties, which in turn allows a more comfortable view of financial risk and borrowing costs.

This leads us neatly into the ruthless cut-and-thrust of the land market. How does it all happen and how can an understanding of it help to break tree-related deadlocks?

Options, auctions and concoctions

The residential land market is a little more homogeneous than most land markets. It is common for land values to be estimated with little more sophistication than £ per hectare or per acre rates, or by a rate per residential unit times the expected number of units. That is not to say that these rates ignore planning contributions and the vagaries of site works; they simply encompass them. In my experience, large no-go tree areas will be factored out by excluding them from the gross site area to be developed and valued. Unfortunately, individual unprotected trees may be ignored on the basis that they can be removed before pre-application discussions with the planning authority. I do not believe there is a rule-of-thumb approach to valuing sites with individual protected trees; instead it is left to the architect to work round or incorporate such trees. Readers will probably be familiar with what BS5837 has to say about such things, but they are far beyond the skills of most valuers or land buyers.

When a developer opens pre-application discussions and is seeking concessions about protected or protectable trees, it is worth understanding the effect of his tenure of the land. Some common possibilities are that:

a. He owns bare land historically, the amount paid for it now being lost in the mists of time.

b. He owns a site in non-residential use and can only develop if the residual site value (after relocation and demolition costs) exceeds the current (existing use) value.

c. He has recently acquired or is about to acquire the site at a price that reflects its value for residential development.

d. He has recently acquired the site at a low value, with a view to highly speculative residential development.

e. He has the land 'under option'. That is to say he does not own it but has a legally binding contract with the owner that he can take ownership if certain conditions are met.

This last scenario is a complex sub-market in its own right. The conditions to be met almost invariably include getting planning consent to the developer's satisfaction. Nuances of this may include getting planning consent for a minimum number of units. The price to be paid for the land may be specified, or just as commonly be linked by a unit rate to the number of consented residential units. Frequently no price is specified, with the value left to be agreed (after planning consent), failing which it is to be determined by a third-party arbitrator or independent expert. A minimum price may be specified. A maximum price may be specified!

The objectives are plain enough: the developer does not want to spend time and money on detailed design or investigation costs only to see the owner sell to a usurper. It can take many years and considerable sums of money to promote a residential site for inclusion in an emerging Local Plan. The developer also doesn't want to pay any more than the site is worth after the realities of a planning consent have been addressed, and can usually insist on walking away from an option site if things are not going to end well. Volume builders are mainly interested in development profit rather than big gains in site values, although they won't ignore the possibility of the latter. At the other end of the deal, the landowner doesn't want to be short changed if he sells and then sees the buyer get a more lucrative planning consent than anyone expected.

Planning and viability

For all that our statutory planning system is highly complex, it has at its core some very simple principles. It is not there to decide what gets built, but rather to make sure there is a 'just enough' supply of land allocated and designated as ready for use for identified needs. In the case of residential land, when the market is buoyant there may be a nearly insatiable demand for development opportunities from landowners and developers. Choices have to be made between these, and naturally the system works best when only those sites that can be brought forward and that add up financially are prioritised.

The statutory Local Plan, which after it is adopted is the de facto priority list when planning applications are being decided, should

start by identifying local housing needs (not demand) in terms of tenure and quantity. Development opportunities that are market-ready can then be matched against the needs in order to meet them. At this stage of the development plan landowners, with or without partner developers, may try very hard to demonstrate that their site is worthy of inclusion in the quota.

With all this in mind, in England the National Planning Policy Framework (NPPF) puts it succinctly: 'Plans should be deliverable.' This slightly fudges the difference between deliverability and viability. Deliverability is fundamentally whether, if a site is allocated in the plan for development, it has a landowner willing to release it from its existing use, whether it has physical access and is free of legal impediments to development (such as servitudes/easements, multiple ownerships, reserved minerals etc). Viability, which is the stuff of this article, is more strictly a financial consideration. Does the development stack up? The NPPF curiously approaches this from the rather developer-friendly direction by saying that the sum total of planning obligations in the plan, such as affordable housing contributions and Community Infrastructure Levy charges, should not kill off a development.

Appraise where appraisal is due

The only logical outcome is that all such policy obligations should be costed before the Local Plan is adopted, and any sites which it is proposed to include should be appraised to ensure they are still financially viable when these costs are included. Unfortunately, the NPPF is not clear whether this should also apply to sites which were designated (unappraised) in Local Plans before the Framework policy came into effect. Conflicts have therefore arisen on such sites, and the casualty has occasionally been planning requirements and development contributions. The policy does at least imply that there will be occasional developments that may be necessarily inhibited by planning gains. Such sites might only be viable if they did not contribute to policy objectives (good design, community infrastructure, tree preservation etc.)

Sometimes the arithmetic will be a whole lot more complex than the examples I have given earlier in this article. Sometimes it will be less complex, when it is clear that sales values exceed build costs by such a margin that viability cannot realistically be compromised by planning obligation costs. But what is clear from national policy is that sites should not be included if they are not deliverable/viable. And if they are included, there appears to be a presumption that they are deliverable/viable and that concessions can be expected by a planning applicant to keep the development viable.

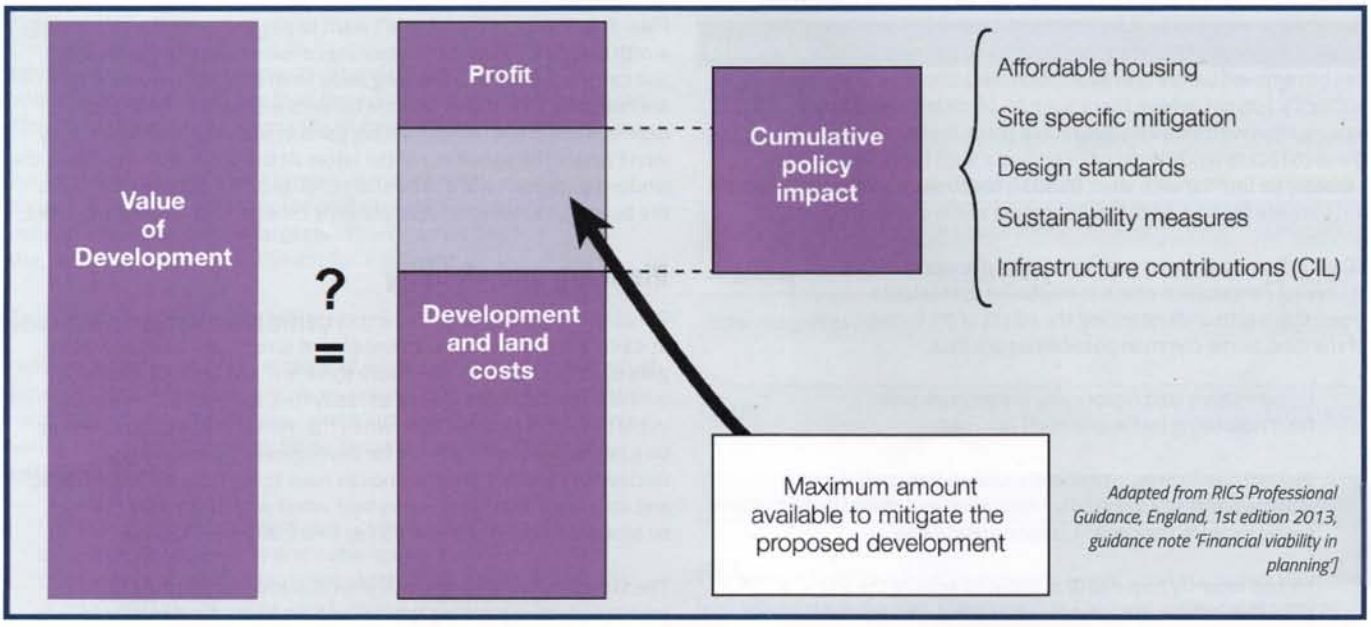
And finally, the Local Plan may not explicitly support other non-allocated sites being granted residential planning permission, but such sites can and do come forward during the life of the plan; they are occasionally termed 'windfall sites'. On the one hand they can be a godsend for planning/housing authorities seeking to meet unfulfilled housing needs thanks to failures of allocated sites; on the other they can be very undesirable hostile applications that if approved would undermine the viability of the allocated sites. In a general sense it is up to the planning authority if it wants to secure these developments by making concessions on development gains and standards.

And so, back to trees. I have indicated earlier that for marginal sites viability may be compromised by the continued preservation of trees. It is also clear that the Local Plan process could pick this up at the stage when sites are being shortlisted for allocation.

What preparations can be made for the viability argument so that deserving trees can be retained? Firstly, tree policies and statutory protections should be articulated at or before the stage when sites are being brought forward at the beginning of the Local Plan cycle, so that the associated policy costs can be taken into account in the council's viability appraisals. Secondly, tree officers and planning officers should be willing and prepared to offer developers constructive advice on cost-effective tree protection measures and products so that developers' unrealistic perceptions of the high costs of preserving trees are not carried into appraisals. Thirdly, appraisals should be scrutinised against published build costs, known house prices and the like to make sure the figures are realistic. Fourthly, the design should be examined to see if better design and the doubling up of rooting areas and amenity/parking/play areas could allow for the retention of trees that otherwise could be lost. Following from this, and as is backed up by published guidance, **it is the viability of the site, not of the developer's individual design that should be appraised**; inefficient or extravagant design resulting in unviable proposals does not need to be rewarded with planning gain concessions. Fifthly, it should be argued where appropriate that the contribution of trees can be a positive financial aspect (improved sales values) which should be reflected in the appraisal. And finally, the tenure of the site by the developer should be disclosed and understood, so that if it is only 'under option' or the site is overvalued by its seller, the residual land value can be adjusted rather than trees lost unnecessarily. There is no rule that says all sites have to be made viable.

As I said at the outset, it is not likely that tree professionals will be the main decision makers, but hopefully an understanding of the language and arithmetic of development appraisals can earn them a constructive place at the table, and with it an opportunity to keep trees on the agenda in a positive way.

> ... preparations can be made for the viability argument so that deserving trees can be retained ...



Adapted from RICS Professional Guidance, England, 1st edition 2013, guidance note 'Financial viability in planning']